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10/591,285	06/18/2007	Makoto Kosugi	90606.609/ym	9411
54071 YAMAHA C/O KEATING & BENNETT, LLP 1800 Alexander Bell Drive SUITE 200 Reston, VA 20191	7590 06/25/2010			
EXAMINER				
NGUYEN, CHUONG P				
ART UNIT		PAPER NUMBER		
3663				
NOTIFICATION DATE		DELIVERY MODE		
06/25/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/591,285

**Applicant(s)**

KOSUGI, MAKOTO

**Examiner**

Chuong P. Nguyen

**Art Unit**

3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 March 2010.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.  
4a) Of the above claim(s) 4, 13, 14 and 17 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-3, 5-12, 15 and 16 is/are rejected.  
7) ☒ Claim(s) 1, 5, 6, 8, 12, 15 and 16 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 31 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of invention I, species A2, B2 in the reply filed on 03/16/2010 is acknowledged.
2. Claims 4, 13-14, and 17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions and species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 03/16/2010.

### *Drawings*

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "the bias member" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters – numerals "22" and "24" in Figure 2 have both been used to designate "clutch actuator". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: numeral 105 (i.e. clutch lever). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

6. Claims 1, 5-6, 8, 12, and 15-16 are objected to because of the following informalities:

Regarding claim 1, line 3 – "*a multiplate clutch the operation*" needs to be changed to "*a multiplate clutch and its operation*".

Regarding claim 5, line 6 – "*an operating force transmitter mechanism*" needs to be changed to "*an operation force transmitting mechanism*".

Regarding claim 6, line 2 – "*and overlapping*" needs to be changed to "*are overlapping*".

Regarding claim 8, line 12 – "*a*" needs to be added before "*bias force release device*".

Regarding claim 8, line 15 – "*releasing device*" needs to be changed to "*release device*".

Regarding claim 12, lines 1-2 – “*the operating force transmitter mechanism*” needs to be changed to “*the operation force transmitting mechanism*”.

Regarding claim 15, line 2 – “*motor cycle*” needs to be changed to “*motorcycle*”.

Regarding claim 15, line 3 – “*configured controlled*” needs to be changed to “*configured to be controlled*”.

Regarding claim 16, line 3 – “*and*” needs to be added after “*clutch actuator*”.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 5-10, and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 5 and 9, the term “*predetermined amount*” renders the claim indefinite. It is not clear of what encompasses and is meant by the term “*predetermined amount*”. The metes and bound of the claims cannot be ascertained by one having ordinary skill in the art.

Regarding claim 6, it recites the limitation “*a partial clutch engagement region*” in line 3. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 8, it recites the limitation “*bias device*” in line 16. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 12, it recites the limitation “*the operating force transmitter mechanism*” in line 3. There is insufficient antecedent basis for this limitation in the claim.

Other claims are also rejected based on their dependency of the defected parent claims.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-3, 6-7, 11, and 15-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Cherry (6,364,809) in view of Kondo et al (6,942,598).

Regarding claim 1, Cherry discloses a riding type vehicle comprising: an automatic transmission (i.e. Fig 1 – automatic transmission 10), a clutch actuator (i.e. Fig 1, 3-4, 6-10 – clutch actuators 26, 28) and a shift actuator (i.e. Fig 11-16 – shift actuators 218, 219) configured to execute a shift change by the automatic transmission (col 5, line 33+; col 6, line 50+; col 7, line 66+; col 9, line 1+, col 9, line 57 – col 12, line 41); a multiplate clutch and its operation of which is controlled by the clutch actuator (i.e. Fig 1 – clutches 20, 22) (col 5, lines 19-35; col 6, line 45+; col 7, line 66+); and wherein in the shift change, of both the clutch actuator and the shift actuator are configured to operate in an overlapping manner (Fig 17-19, col 9, line 57 – col 12, line 41). In addition, Cherry discloses a bias member (i.e. Fig 6-10 – springs 104, 120, 202) and a clutch engagement region of the multiplate clutch (i.e. Fig 19 – sections I-III) (Abstract; col 6, line 23, line 36; col 8, line 3-35; col 12, lines 7-41). However, Cherry does not explicitly

disclose the bias member configured to enlarge a partial clutch engagement region of the multiplate clutch. Kondo et al teach in the same field of endeavor the bias member (i.e. Fig 3 – lock-up engagement device 122) configured to enlarge a partial clutch engagement region of the multiplate clutch (Abstract; Fig 6; col 8, line 60 – col 9, line 34; col 11, line 51 – col 12, line 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate such bias member configured to enlarge a partial clutch engagement region of the multiplate clutch as taught by Kondo et al in the system of Cherry because it does no more than yield predictable results of controlling the clutch engagement since it has been held that the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results (MPEP 2143).

Regarding claim 2, Cherry discloses the bias member is a coil spring (i.e. Fig 6-10 – springs 104, 120, 202) (col 6, line 23, line 36; col 8, line 3-35).

Regarding claim 3, Cherry does not explicitly disclose the bias member is configured to enlarge the partial clutch engagement region by reducing a rigidity of the multiplate clutch. Kondo et al teach in the same field of endeavor the bias member (i.e. Fig 3 – lock-up engagement device 122) configured to enlarge the partial clutch engagement region by reducing a rigidity of the multiplate clutch (Abstract; Fig 6; col 8, line 60 – col 9, line 34; col 11, line 51 – col 12, line 31; col 13, line 23-33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate such bias member is configured to enlarge the partial clutch engagement region by reducing a rigidity of the multiplate clutch as taught by Kondo et al in the system of Cherry because it does no more than yield predictable results of controlling the clutch engagement since it has been held that the combination of familiar

elements according to known methods is likely to be obvious when it does no more than yield predictable results (MPEP 2143).

Regarding claim 6, Cherry discloses in Fig 18-19 when the clutch actuator and the shift actuator are overlapping, a shift change operation of the shift actuator is executed in a partial clutch engagement region produced by controlling the clutch actuator (col 10, line 32 – col 12, line 41).

Regarding claim 11, Cherry in view of Kondo et al do not explicitly disclose that the clutch actuator is disposed at inside of the engine of the riding type vehicle. It would have been obvious to one having ordinary skill in the art at the time the invention was made to dispose the clutch actuator at inside of the engine of the vehicle, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Regarding claim 15, Cherry discloses in Fig 17-18 the clutch actuator and the shift actuator are configured to be controlled by an electronic control device (i.e. transmission controller 320) (col 9, line 57 – col 12, line 6). In addition, Cherry discloses the invention in relating to any motor vehicle with automatic transmission (Abstract; Background and Summary of the Invention); thus it would have been obvious to one having ordinary skill in the art at the time the invention was made that Cherry's application would also be applied to a motorcycle as well.

Regarding claim 16, Cherry discloses in Fig 17-18 the automatic transmission is configured to execute the shift change by an instruction of a driver, or an instruction by an electronic control apparatus electrically connected to the clutch actuator the shift actuator (i.e. transmission controller 320) (col 9, line 57 – col 12, line 6).



11. While patent drawings are not drawn to scale, relationships clearly shown in the drawings of a reference patent cannot be disregarded in determining the patentability of claims. See In re Mraz, 59 CCPA 866, 455 F.2d 1069, 173 USPQ 25 (1972).

***Allowable Subject Matter***

12. Claims 5, 8-10, and 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

13. The cited prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong P. Nguyen whose telephone number is 571-272-3445. The examiner can normally be reached on M-F, 8:00 - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chuong P Nguyen/  
Examiner, Art Unit 3663